
65. (Amended) The carbon foam of claim 58 wherein the foam provides a bulk thermal conductivity from about 58 W/m·K to about 106 W/m·K.

C4 66. (Amended) The carbon foam of claim 65 characterized by an X-ray diffraction pattern exhibiting relatively sharp doublet peaks at 2θ angles between 40 and 50 degrees.

C5 69. (Amended) The carbon foam of claim 56 wherein the foam provides a specific thermal conductivity greater than about $109 \text{ W}\cdot\text{cm}^3/\text{m}\cdot\text{K}\cdot\text{g}$.

71. (Amended) The carbon foam of claim 69 characterized by an X-ray diffraction pattern having an average d002 spacing of about 0.336 and exhibiting relatively sharp doublet peaks at 2θ angles between 40 and 50 degrees.

C6 72. (Amended) The carbon foam of claim 56 wherein the foam provides a specific thermal conductivity from about $109 \text{ W}\cdot\text{cm}^3/\text{m}\cdot\text{K}\cdot\text{g}$ to about $200 \text{ W}\cdot\text{cm}^3/\text{m}\cdot\text{K}\cdot\text{g}$.

C7 76. (Amended) The carbon foam of claim 56 wherein the foam provides a specific thermal conductivity greater than copper.

C8 78. (Amended) The carbon foam of claim 77 characterized by an X-ray diffraction pattern exhibiting relatively sharp doublet peaks at 2θ angles between 40 and 50 degrees.

C9 80. (Amended) The carbon foam of claim 56 wherein the foam provides a specific thermal conductivity greater than four times that of copper.